



PTO/SB/08a (07-09)

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Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet

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of

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**Complete if Known**

Application Number	10/567,157-Conf. #4222
Filing Date	June 1, 2006
First Named Inventor	Roberto Angelo Motterlini
Art Unit	1614
Examiner Name	A. A. Lewis
Attorney Docket Number	H0817.70003US00

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	*	US-7,045,140	05-16-2006	Motterlini et al.	
	*	US-7,011,854	03-14-2006	Haas et al.	
	*	US-6,673,908	01-06-2004	Stanton, Jr.	
	*	US-6,645,938	11-11-2003	Oeltgen et al.	
	*	US-6,518,269	02-11-2003	Camden et al.	
	*	US-6,417,182	07-09-2002	Abrams et al.	
	*	US-6,350,752	02-26-2002	Glasky et al.	
	*	US-6,344,178	02-05-2002	Alberto et al.	
	*	US-6,338,963	01-15-2002	Glasky et al.	
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	*	US-6,251,927	06-26-2001	Lai et al.	
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	*	US-6,218,417	04-17-2001	Del Soldato	
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	*	US-6,203,991	03-20-2001	Nabel et al.	
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	*	US-6,066,333	05-23-2000	Willis et al.	
	*	US-6,060,467	05-09-2000	Buelow et al.	

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		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
		EP-0076493-A2	04-13-1983	Dragoco Gerberding Co. GmbH		✓
		FR-2816212-A1	05-10-2002	Air Liquide Sante Int		✓
		GB-0111872.8-A	07-03-1968	Northwick Park Institute for Medical Research		
		GB-0227135.1-A	04-13-1994	Northwick Park Institute for Medical Research		
		GB-0227138.5-A	04-13-1994	Northwick Park Institute for Medical Research		
		GB-1107510-A	03-27-1968	Merck & Co. Inc		

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ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /A.L./

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Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				<b>Complete if Known</b>	
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				Examiner Name	A. A. Lewis
Sheet	2	of	34	Attorney Docket Number	H0817.70003US00

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	*	US-6,051,576	04-18-2000	Ashton et al.	
	*	US-6,040,341	03-21-2000	Del Soldato et al.	
	*	US-6,027,936	02-22-2000	Glasky	
	*	US-6,025,394	02-15-2000	Menander et al.	
	*	US-5,891,689	04-06-1999	Takle et al.	
	*	US-5,888,982	03-30-1999	Perrella et al.	
	*	US-5,885,621	03-23-1999	Head et al.	
	*	US-5,882,674	03-16-1999	Herrmann et al.	
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	*	US-5,664,563	09-09-1997	Schroeder et al.	
	*	US-5,659,027	08-19-1997	Spielvogel et al.	
	*	US-5,631,284	05-20-1997	Legzdins et al.	

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		GB-2395431-A	05-26-2004	Northwick Park Institute for Medical Research	
		GB-2395432-A	05-26-2004	Northwick Park Institute for Medical Research	
		HU-211084-A2	12-30-1991	Brezo Magdolna et al.	
		HU-57595-A2	12-30-1991	Magdolna et al.	✓
		WO-85/04326-A1	10-10-1985	Biocompatibles Ltd	
		WO-91/01128-A1	02-07-1991	Eastman Kodak Co	

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	*	US-5,086,060	02-04-1992	Haley et al.	
	*	US-5,010,073	04-23-1991	Kappas et al.	
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	*	US-3,829,504	08-13-1974		
	*	US-3,812,166	05-21-1974	Wiechert	
	*	US-3,694,232	09-26-1972		
	*	US-3,278,570	10-11-1966	Wilkinson et al.	

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		WO-91/01301-A1	02-07-1991	Eastman Kodak Co		
		WO-92/03402-A1	03-05-1992	Firmenich SA		
		WO-92/04905-A1	04-02-1992	Abraham et al.		
		WO-94/22482-A1	10-13-1994	Biorelease Tech Inc		
		WO-95/005814	03-02-1995	Johnson Matthey Public Limited Company		
		WO-95/009831	04-13-1995	Nicox S.A.		

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	*	US-2,870,180	01-20-1959	Kozikowski et al.	
	*	US-2008-0026984	01-31-2008	De Matos et al.	
	*	US-2007-0219120	09-20-2007	De Matos et al.	
	*	US-2007-0207993	09-06-2007	Haas et al.	
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	*	US-2006-0127501	06-15-2006	Motterlini et al.	
	*	US-2006-0115542	06-01-2006	Motterlini et al.	
	*	US-2005-0175555	08-11-2005	Stradi et al.	
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	*	US-2004-0228930	11-18-2004	Billiar et al.	
	*	US-2004-0214900	10-28-2004	Forbes et al.	
	*	US-2004-0143025	07-22-2004	Buelow et al.	
	*	US-2004-0131602	07-08-2004	Buelow et al.	
	*	US-2004-0067261	04-08-2004	Haas et al.	
	*	US-2004-0052866	03-18-2004	Otterbein et al.	
	*	US-2003-0219497	11-27-2003	Otterbein et al.	

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		WO-96/003125	02-08-1996	NeoTherapeutics		
		WO-96/009038	03-28-1996	William Harvey Research Limited		
		WO-97/16405-A1	05-09-1997	Nicox S.A.		
		WO-97/36615-A1	10-09-1997	President and Fellows of Harvard College		
		WO-97/37644-A1	10-16-1997	The General Hospital Corp.		
		WO-98/09618-A2	03-12-1998	Sangstat Medical Corporation		

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	*	US-2003-0219496	11-27-2003	Otterbein et al.	
	*	US-2003-0207786	11-06-2003	Miracle et al.	
	*	US-2003-0157154	08-21-2003	Fuller et al.	
	*	US-2003-0124157	07-03-2003	Engles et al.	
	*	US-2003-0068387	04-10-2003	Buelow et al.	
	*	US-2003-0064114	04-03-2003	Motterlini et al.	
	*	US-2003-0039638	02-27-2003	Bach et al.	
	*	US-2002-2045611	04-18-2002	Bridger et al.	
	*	US-2002-0193363	12-19-2002	Bridger et al.	
	*	US-2002-0165242	11-07-2002	Glasky et al.	
	*	US-2002-0155166	10-24-2002	Choi et al.	

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		WO-98/29115-A1	07-09-1998	Univ British Columbia		
		WO-98/38179-A1	09-03-1998	Glaxo Group Limited		
		WO-98/48848-A1	11-05-1998	Mallinckrodt Medical Inc et al.		
		WO-99/67231-A1	12-29-1999	Nicox S.A.		
		WO-00/36113-A2	06-22-2000	Sangstat Medical Corporation		
		WO-00/56145-A1	09-28-2000	Univ James Cook et al.		

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		WO-00/56743-A1	09-28-2000	Anormed Inc	
		WO-00/61537-A2	10-19-2000	Nicox S.A.	
		WO-00/10613-A2	03-02-2000	The Regents of the University of Michigan	
		WO-01/12584-A2	02-22-2001	Nicox S.A.	
		WO-01/16359-A2	03-08-2001	Univ London et al.	
		WO-01/28545-A2	04-26-2001	NeoTherapeutics	

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				First Named Inventor	Roberto Angelo Motterlini
				Art Unit	1614
				Examiner Name	A. A. Lewis
				Attorney Docket Number	H0817.70003US00
Sheet	8	of	34		

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FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)	MM-DD-YYYY			
		WO-03/088981-A1	10-30-2003	Univ Pittsburgh et al.		
		WO-03/088923-A2	10-30-2003	Univ Pittsburgh et al.		
		WO-03/094932-A1	11-20-2003	Univ Yale et al.		
		WO-03/096977-A2	11-27-2003	Yale University		
		WO-03/103585-A2	12-18-2003	Yale University		
		WO-2004/029033-A1	04-08-2004	Kao Corporation		

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		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
		WO-2004/043341-A2	05-27-2004	University of Pittsburgh of The Commonwealth System of Higher Education		
		WO-2004/045598-A1	06-03-2004	Hemocorm Limited		
		WO-2004/045599-A1	06-03-2004	Hemocorm Limited		
		WO-2004/080420-A2	09-23-2004	Mota et al.		
		WO-2005/090400-A1	09-29-2005	The University Court of the University of Glasgow		
		WO-2006/012215-A1	02-02-2006	Flexitral, Inc.		

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		WO-2007/073226-A1	06-28-2007	Alfama - Investigação E Desenvolvimento De Produtos Farmacêuticos Lda	
		WO-2007/085806-A2	08-02-2007	Hemocorm Ltd et al.	
		WO-2008/003953-A2	01-10-2008	Hemocorm Ltd et al.	
		WO-2008/069688-A2	06-12-2008	Alfama - Investigação E Desenvolvimento De Produtos Farmacêuticos Lda	
		WO-2008/130261-A1	10-30-2008	Alfama Investigacao E Desenvol et al.	
		WO-2009/013612-A1	01-29-2009	Alfama Investigacao E Desenvol et al.	

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		[No Author Listed] "supramolecule" IUPAC compendium of chemical terminology. Retrieved from the internet at <a href="http://www.iupac.org/goldbook/SO6153.pdf">www.iupac.org/goldbook/SO6153.pdf</a> on May 8, 2006.	
		[No Author Listed] Biosis Chem Abstracts Database. Accession No. PREV200600414130. 2005. Otterbein et al., Cell Mol Biol (Noisy-le-grand). 2005 Oct 3;51(5):433-40. Abstract.	
		[No Author Listed] Chemical Abstracts. 2002;137:119662. (FR2816212)	
		[No Author Listed] Chemical Abstracts. 2004;140:40075. (WO2004/043341)	
		[No Author Listed] Chemical Abstracts. 2004;141:270758. (Ryter et al.)	
		[No Author Listed] Chemical Abstracts. 2004;142:211995. (Stein et al.)	
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		AKAMATSU et al., Heme oxygenase-1-derived carbon monoxide protects hearts from transplant associated ischemia reperfusion injury. FASEB J. 2004 Apr;18(6):771-2. Epub 2004 Feb 20.	
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		BOISSIERE et al., Exercise and vasorelaxing effects of CO-releasing molecules in hypertensive rats. Med Sci Sports Exerc. 2006 Apr;38(4):652-9.	
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				First Named Inventor	Roberto Angelo Motterlini
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		DUCHÊNE et al., Cyclodextrins in targeting. Application to nanoparticles. Adv Drug Deliv Rev. 1999 Mar 1;36(1):29-40.	
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		FISCHER, Crystal structure of 1,4,7,10,13-pentaoxacyclopentadecane sodium bromide, C <sub>10</sub> H <sub>20</sub> BrNaO <sub>5</sub> . Zeitschrift fur kristallographie. 1996;2001:827-8.	✓
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		GORDEUK et al., Carbonyl iron therapy for iron deficiency anemia. Blood. 1986 Mar;67(3):745-52.	
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		HIEBER et al., Derivate des Mangancarbonyls mit schwefelorganischen Liganden. Chemische Berichte. 1966;99(7):2312-21.	✓
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		HUEBERS et al., Absorption of carbonyl iron. J Lab Clin Med. 1986 Nov;108(5):473-8.	
		IGNAT'EV et al., Reactivity of perfluoroalkyl halides towards nucleophiles. Russ J Electrochem. 1995;31(12):1235-9. Translated from Elektrokhimiya. 1995;31(12):1337-42.	✓
		JANDER et al., Neutralisationen analoge reaktionen in essigsaureanhydrid. Zietschrift fur anorganische chemie. 1948;255:238-52. English abstract provided.	✓
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		NAKAO et al., Carbon monoxide inhalation protects rat intestinal grafts from ischemia/reperfusion injury. Am J Pathol. 2003 Oct;163(4):1587-98.	
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Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				Application Number	10/567,157-Conf. #4222
				Filing Date	June 1, 2006
				First Named Inventor	Roberto Angelo Motterlini
				Art Unit	1614
				Examiner Name	A. A. Lewis
Sheet	34	of	34	Attorney Docket Number	H0817.70003US00

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		YAN et al., Cytotoxicity of rhenium(I) alkoxo and hydroxo carbonyl complexes in murine and human tumor cells. Pharmazie. 2000 Apr;55(4):307-13.	
		ZHANG et al., Carbon monoxide inhibition of apoptosis during ischemia-reperfusion lung injury is dependent on the p38 mitogen-activated protein kinase pathway and involves caspase 3. J Biol Chem. 2003 Jan 10;278(2):1248-58. Epub 2002 Oct 23.	
		ZIMMERMAN et al., Cerebroprotective effects of the CO-releasing molecule CORM-A1 against seizure-induced neonatal vascular injury. Am J Physiol Heart Circ Physiol. Oct 2007;293:H2501-H2507.	
		ZUCKERBRAUN et al., Carbon monoxide protects against the development of experimental necrotizing enterocolitis. Am J Physiol Gastrointest Liver Physiol. 2005 Sep;289(3):G607-13. Epub 2005 May 12.	
		ZUCKERBRAUN et al., Carbon monoxide reverses established pulmonary hypertension. J Exp Med. 2006 Sep 4;203(9):2109-19. Epub 2006 Aug 14.	

Examiner Signature	/Amy Lewis/	Date Considered	09/28/2010
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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